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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|--|-------------|-------------------------|----------------------|------------------|
| 10/044,747   | 01/10/2002  | Anthony Joseph Cesaroni | 33477.242989         | 8407             |
| 826  | 7590        | 08/30/2004              | EXAMINER             |                  |
| ALSTON & BIRD LLP<br>BANK OF AMERICA PLAZA<br>101 SOUTH TRYON STREET, SUITE 4000<br>CHARLOTTE, NC 28280-4000 |             |                         | FELTON, AILEEN BAKER |                  |
|  |             | ART UNIT                |                      | PAPER NUMBER     |
|  |             |                         |                      | 3641             |

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |   |  |
|------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b>                                | <b>Applicant(s)</b>                            |
|                              | 10/044,747<br><br><b>Examiner</b><br>Aileen B. Felton | CESARONI ET AL.<br><br><b>Art Unit</b><br>3641 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 20 May 2004.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-4 and 7-35 is/are pending in the application.  
 4a) Of the above claim(s) 21 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-4,7-20 and 22-34 is/are rejected.  
 7) Claim(s) 35 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/20/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION*****Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 7, and 23-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are indefinite since claim 1 recites that the pellets are arranged in an array and claim 24 recites that they are arranged in an array of predetermined arrangement. It is not clear what Applicant means by arranged in claim 1, if not arranged in some predetermined arrangement.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7-20, and 22-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glass (3,811,380) in view of Schoyer et al (4,950,341).

Glass discloses a plurality of pellets of explosive that is imbedded in a matrix (fig. 10 and col. 4, lines 20-25). The matrix may be a rubber material or epoxy resin. The resin is cast into segments in a mold with the pellets molded within the mold. The resin is in liquid form when it is poured into the mold (col. 8, lines 3-12). The mold functions

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to hold the pellets in place while the binder is poured over top. The particular fuel, oxidizer, and binder are not disclosed.

Schoyer et al teaches a composition for use in a rocket that comprises hydrazinium nitroformate, aluminum, and an energetic binder such a GAP or BAMO.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the fuel, oxidizer and binders as taught by Schoyer since Glass suggests that any fuels, oxidizers and binders can be used. It is irrelevant that the composition of Schoyer is a mixed composition since the teaching is merely to show that the particular fuel, oxidizer and binder are known in the rocket propellant art and one would be motivated to use that teaching with a structure as taught by Glass. Also, the claims are of comprising scope which does allows the pellet to contain both fuels and oxidizers as well as any other ingredients.

5. Claims 1-4, 7-20, 22, and 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter et al (3,522,334) in view of Schoyer et al (4,950,341).

Hunter et al discloses an oxidizer pellet that is coated with aluminum and then a wax coating (col. 3, lines 60-75). The pellets can be compounded by mixing and then shape by molding into any suitable grain design (col.5, lines 45-55). The finished propellant is a solid and thus the binder acts to hold the pellets together. The mold functions to hold the pellets in place while the binder is poured over top. The particular fuel, oxidizer, and binder are not disclosed.

Schoyer et al teaches a composition for use in a rocket that comprises hydrazinium nitroformate, aluminum, and an energetic binder such a GAP or BAMO.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the fuel, oxidizer and binders as taught by Schoyer since Glass suggests that any fuels, oxidizers and binders can be used. It is irrelevant that the composition of Schoyer is a mixed composition since the teaching is merely to show that the particular fuel, oxidizer and binder are known in the rocket propellant art and one would be motivated to use that teaching with a structure as taught by Glass. Also, the claims are of comprising scope which does allows the pellet to contain both fuels and oxidizers as well as any other ingredients.

***Allowable Subject Matter***

6. Claim 35 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-4 and 7-31 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 703.306.5751. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703.306.4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Aileen Felton*  
**AILEEN FELTON**  
**PRIMARY EXAMINER**